IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Number: 7,324,157 B2
Issued: January 29, 2008
Name of Patentee: Kuroda, et al
Title of Invention: REPEAT FIELD DETECTING APPARATUS, VIDEO PROGRESSIVE CONVERSION REPRODUCING APPARATUS, REPEAT FIELD DETECTING METHOD, PROGRAM, AND RECORDING MEDIUM

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT FOR PTO MISTAKE (37 C.F.R. § 1.322(a))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attention: Decision and Certificate of Correction
Branch of the Patent Issue Division

1. Attached is Form PTO/SB/44 being suitable for printing.

2. Correction of the Official Letters Patent is respectfully requested in view of the following text which appears correctly in the application file:

In claim 12, at column 31, beginning at line 32 , please insert the following text after "threshold value;"--"m-th M/N ratio adaptive RF determination value means of returning the reliability of said"-- as indicated in the Preliminary Amendment at page 23, line 26 and page 24, line 1 filed on September 2, 2004.

3. Please send the Certificate to:

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Assignment Recorded on: September 3, 2005

Reel: 016539

Frame: 0514

Respectfully submitted,

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LEA/so

Enclosure: Form PTO/SB/44
Copy/Pages 23 and 24 of Preliminary Amendment filed 9/4/2004

Dated: March 31, 2008

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12. (New) A repeat field detecting apparatus according to claim 9, wherein said M/N ratio adaptive composite RF determining means comprises:

a first RF determining means according to claim 7;

a second RF determining means of comparing said discrepancy pixel number with a second RF determination threshold value which is a predetermined value, then detecting that the field is a repeat field if said discrepancy pixel number is smaller than said second RF determination threshold value, and detecting that the field is an ordinary field if said discrepancy pixel number is greater than said second RF determination threshold value;

discrepancy pixel storing means of storing said discrepancy pixel number and then outputting said discrepancy pixel number with a delay of one field;

a third RF determining means of comparing the output of said discrepancy pixel storing means with said discrepancy pixel number, then detecting that the field is a repeat field if said discrepancy pixel number is smaller than or equal to the output of said discrepancy pixel storing means, and detecting that the field is an ordinary field if said discrepancy pixel number is greater than the output of said discrepancy pixel storing means;

M/N ratio calculating means of calculating an M/N ratio which is the ratio of the motion component to the noise component on the time axis of said video input signal, from said discrepancy pixel number;

a fourth RF determining means of selecting a threshold value obtained in advance for the purpose of repeat field detection in correspondence to an M/N ratio based on the output of said M/N ratio calculating means, then comparing said discrepancy pixel number with a fourth RF determination threshold value generated by adding the inputted N component to said selected threshold value, then detecting that the field is a repeat field if said discrepancy pixel number is smaller than said fourth RF determination threshold value, and detecting that the field is an ordinary field if said discrepancy pixel number is greater than said fourth RF determination threshold value;

m-th M/N ratio adaptive RF determination value means of returning the reliability of said m-th (m=1 through 4) RF determining means on the basis of the output of said M/N ratio calculating means; and

adding means of adding the output of said m-th M/N ratio adaptive RF determination value means, then comparing this result with an M/N ratio adaptive composite RF determination threshold value which is a predetermined value, then determining the field as a repeat field when said result is greater than said threshold value, and determining the field as an ordinary field when said result is smaller than said threshold value.

13. (New) A repeat field detecting apparatus according to claim 12, wherein said m-th (m=1 through 4) M/N ratio adaptive RF determination value means outputs a value which is a predetermined and recorded value corresponding to the output of the M/N ratio calculating means and indicating the reliability of the m-th RF determining means, and which is positive for a repeat field and is negative for an ordinary field, and further the absolute value of which indicates the reliability, wherein a large value indicates high reliability, while a small value indicates low reliability.

14. (New) A repeat field detecting apparatus according to claim 9, wherein said long term M/N ratio calculating means comprises:

period position identifying means of being initialized by an initialization input, then being incremented by one at each time when said discrepancy pixel number is received in association with the elapse of one field, and then returning to the initial value after the elapse of n fields (n=1 through 5), so as to output a period position;

initial period checking means of outputting whether said period position identifying means has advanced by one or more periods or not;

first through fifth accumulated averaging means of calculating the average of said discrepancy pixel numbers when said period position identifying means indicates the n-th field, so that the average is stored into the n-th accumulated averaging means;

PTO/SB/44 (04-05))
Approved for use through 04/30/2007. OMB 0651-0033
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(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO: 7,324,157 B2

APPLICATION NO.: 10/506,578

ISSUE DATE: JANUARY 29, 2008

INVENTOR(S): KURODA, ET AL

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In claim 12, at column 31, beginning at line 32 , please insert the following text after "threshold value;"--"m-th M/N ratio adaptive RF determination value means of returning the reliability of said"-- as indicated in the Preliminary Amendment at page 23, line 26 and page 24, line 1 filed on September 2, 2004.

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